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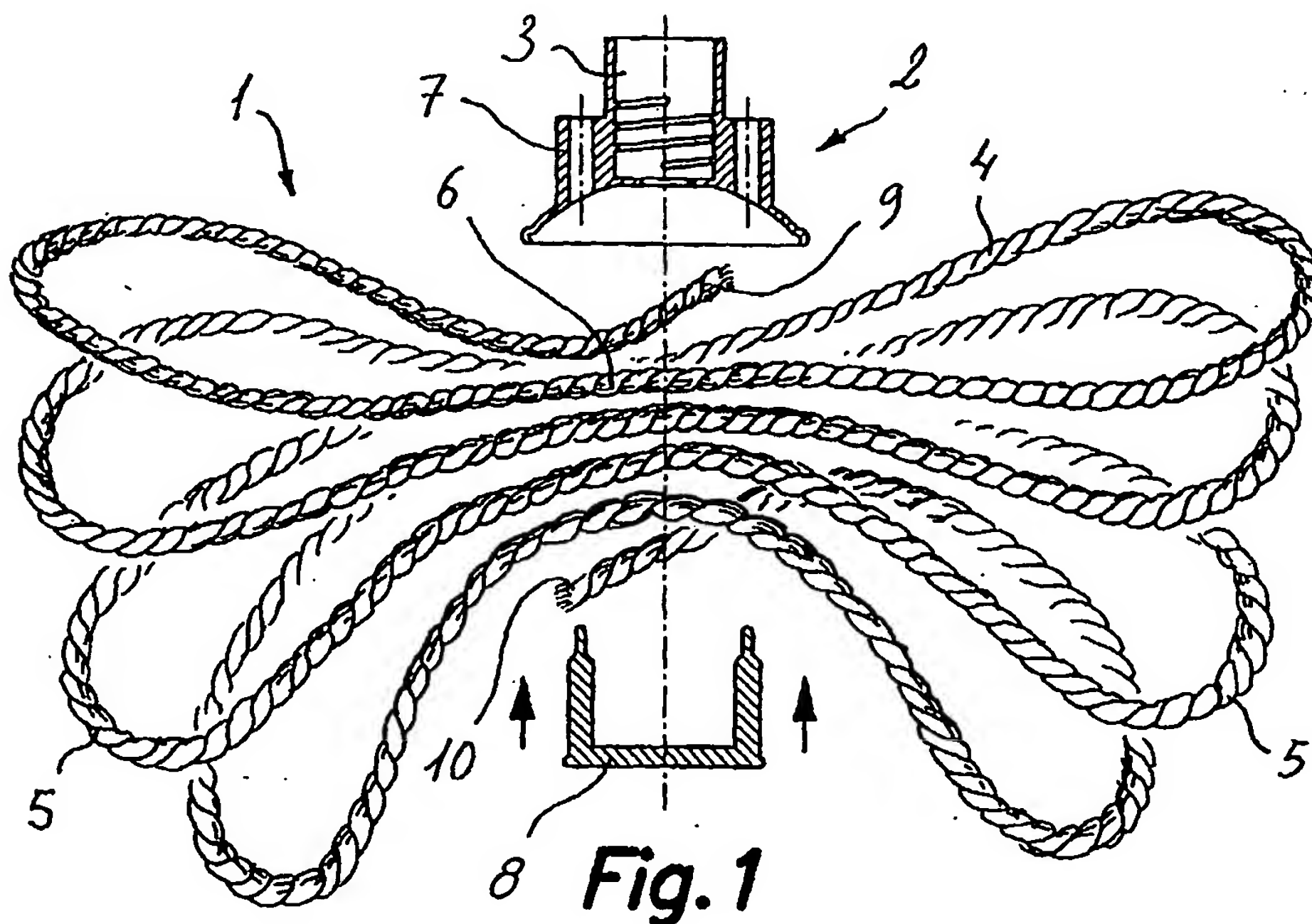
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(54) **Mop implement**

(57) It comprises a plurality of oblong elements (1) of an absorbent material, hanging from a head (2) to which they are fastened. The head (2) is provided with coupling means (3) for fastening it on a stick. The oblong elements (1) are composed of a string (4) formed by at least two cords, each in turn constituted by a plurality of thin microfibre threads, said cords being thrown on

themselves and twisted to each other. Preferably, the plurality of oblong elements (1) is constituted by a single string (4), repeatedly folded to form a plurality of loops (5) gathered together and fastened by their middle area (6) on the head (2) together with ends (9, 10) thereof. Preferably, string (4) is formed of three or more of said thrown cords which are twisted to each other.



**Fig. 1**

## Description

[0001] This utility model refers to a mop implement of the kind comprising a plurality of oblong elements of an absorbent material, hanging from a head to which they are fastened, said head being provided with coupling means for fastening it on a stick.

[0002] The use of microfibres is known as a basis for a fibrous textile material from which are produced all kind of cleaning implements, including mop heads taking profit of the microfibre excellent absorbing power.

[0003] The utility model ES-A-104 1084 discloses a mop head in which said plurality of oblong elements are constituted of flexible and significantly tubular members joined by one of their end or by their middle areas to a structural part of the head and open by their other free open ends. The tubular elements are obtained from a microfibre fabric.

[0004] The utility model ES-A-1048425 discloses a mop strip similar to that of above model, which is made out of a woven or nonwoven textile material of microfibre, wound and sewed as a tubular structure.

[0005] The utility model ES-A-1039799 discloses a cleaning element comprising a head with a plurality of oblong cleaning elements of absorbent material, each of which is formed by two oblong strips of microfibre fabric sewed lengthwise by their central areas, which results in X cross sectional strips.

[0006] The utility models ES-A- 1044761 and ES-A-1046211 disclose other cleaning implements which incorporate woven or non woven microfibre fabric as absorbent element.

[0007] In all said elements, the microfibre is incorporated forming laminar structures, either woven or not, relatively thin and having the shape of strips, tubes or cloths. In the practise, when using said laminar structures, only one face of them is contacting the areas to be cleaned, with which the surface of the microfibre yarns which may absorb liquid is limited.

[0008] Also implements are known of this kind which comprise heads fastened at the end of a stick, that the oblong elements comprises a plurality of separate lengths, eventually knotted to each other, fastened by one of its ends on a part of the head or separate lengths trapped by their middle part between two parts of the head.

[0009] The utility model ES-A-1022228 discloses a framework for a head of a cleaning implement in which one of the parts of the head is a retaining plate comprising two toothed half stems coupled to a central hole of the other part of the head, having a corresponding diameter, trapping a plurality of separate oblong elements.

[0010] Although this fastening system is practical, the arrangement of the oblong elements in separate lengths has the drawback of requiring slow and disgusting mounting operations which carry a low economic profitability because it is required, first to cut a continuous

oblong element splitting it into a plurality of lengths or pieces having each same length; and then, to gather together all the lengths cut, so that the ends of some of them are not protruding more than the others, while the two parts of the head are joined fastening the lengths by their middle parts.

[0011] An object of this utility model is to provide a mop implement comprising a head with a plurality of oblong elements of textile material based on microfibre having an improved absorbing power with respect to the prior art.

[0012] Another object of this utility model is to provide a mop implement which, thanks to the configuration of said oblong elements is easily, quickly and cheaply mounted.

[0013] Said objects are achieved, according to this utility model, providing a mop implement which comprises a plurality of oblong elements composed of a cord formed by at least two strings, each in turn formed by a plurality of thin microfibre threads, each of said strings being thrown on themselves and twisted to each other. Preferably said cord is formed by three or more of said thrown and twisted to each other strings.

[0014] Said strings of thrown cords constitute oblong elements having a substantially rounded cross section, and which are extraordinarily soft and absorbent and they have the advantage against the woven or nonwoven laminar structured elements, they have a wider surface which can contact the liquid and/or the surface to be cleaned because the strings and cords are exposed throughout its periphery.

[0015] According to a preferred example of embodiment of the implement of this utility model, said plurality of oblong elements is constituted by a single string, repeatedly folded to form a plurality of loops joined and fastened by their middle area on the head. With such construction, every oblong absorbent element of the head can be formed from a single cut length, duly folded, which allows to easily, quickly and cheaply mounting it, for example, providing two parts of the conventional kind which can be coupled to each other trapping between them the said middle areas of the loops of said string, together with free ends thereof.

[0016] These and other characteristics and advantages will be more apparent from following detailed description with reference to the drawing appended in which:

Fig. 1 is a cross sectional view of the elements constituting the mop implement of this utility model in a situation immediately prior to its mounting

Fig. 1a is a detail showing an end of the string which constitutes the absorbent oblong elements of the implement of Fig. 1; and

Fig. 2 is a cross sectional view of the elements of Fig. 1 already assembled for forming the mop implement.

[0017] Referring to Fig. 1 and 2, the mop implement

of this utility model is of the kind comprising a plurality of oblong elements 1, of an absorbent material, hanging from a head 2 to which they are fastened, said head 2 being provided with coupling means 3, said as a socket, optionally including a threading, for fastening it at the end of a stick (not shown). 5

[0018] As it is shown in Fig. 1a, said oblong elements 1 are composed of a string formed of several cords, each in turn formed by a plurality of thin microfibre threads. Said cords are separately thrown on themselves, in opposite winding directions and twisted to each other. The number of thrown and twisted cords is at least two and an undetermined maximum number, although a cord formed of three cords is suitable. Said cord 4 has a substantially rounded cross section and results extremely soft and absorbent thanks that it has a plurality of microfibre threads exposed throughout its perimeter. 10 15

[0019] Advantageously, the plurality of oblong elements 1 is constituted by a single string 4, repeatedly folded to form a plurality of loops 5 gathered together and fastened by their middle area 6 on the head 2. With such arrangement and using a head 2 as shown in Fig. 1 and 2, which comprises two parts 7, 8 which can be coupled to each other trapping the said middle areas 6 of the loops 5 of said string 4, together with ends 9, 10 thereof, it is possible to achieve the assembly of the implement through easy, simple and cheap operations. 20 25

[0020] Although this utility model has been disclosed through a specific example of embodiment, its is for illustration purpose only and does not limit the scope of this invention, as defined in the claims appended. 30

#### Claims 35

1. Mop implement of the kind comprising a plurality of oblong elements (1) of an absorbent material, hanging from a head (2) to which they are fastened, said head (2) being provided with coupling means (3) for fastening it on a stick, **characterized in that** said oblong elements (1) are composed of a string (4) formed by at least two cords, each in turn constituted by a plurality of thin microfibre threads, said cords being thrown on themselves and twisted to each other. 40 45
2. Mop implement, according to claim 1, **characterized in that** said plurality of oblong elements (1) is constituted by a single string (4), repeatedly folded to form a plurality of loops (5) gathered together and fastened by their middle area (6) on the head (2). 50
3. Mop implement, according to claim 1, **characterized in that** said string (4) is formed of three or more of said thrown cords which are twisted to each other. 55
4. Mop implement, according to claim 2, **character-**

ized In that the head (2) comprises two parts (7, 8) which can be coupled to each other, trapping the said middle areas (6) of the loops (5) of said string (4) together with ends (9, 10) thereof.

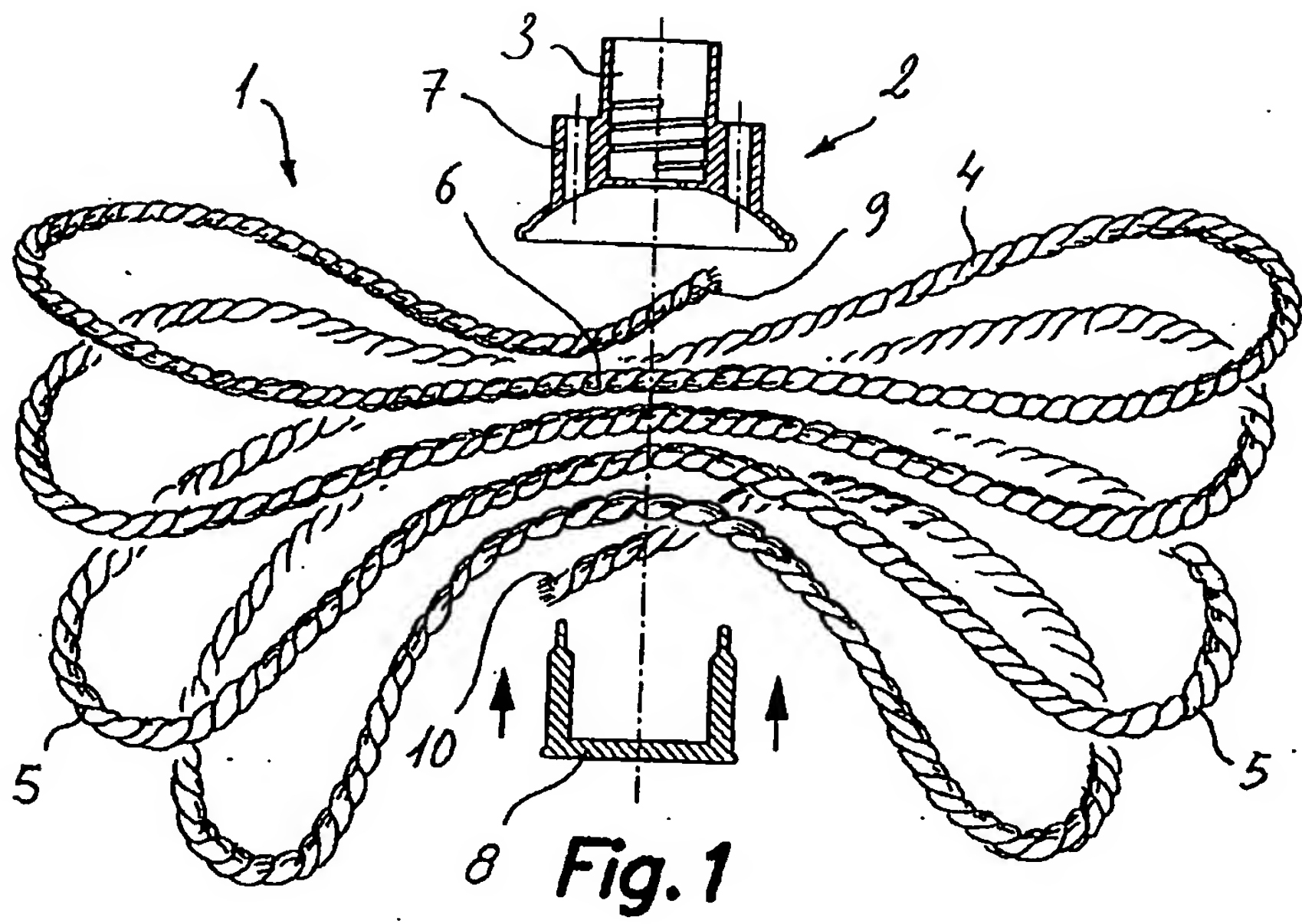


Fig. 1a

